

PCC315B

Prime Power: 220KW/275KVA Powered by Cummins NTA855-G1A



Engine

Genset Performance

- 230/400V, 50Hz, 0.8PF, 3 Phases 4 wires
- ≤3% Frequency drop
- ≤0.3% Voltage regulation
- ≪0.5% The steady state frequency
- The steady state voltage deviation $\leq \pm 1\%$
- The transient frequency deviation ≤+10% ≤-15%

≤+20% ≤-15%

 \leq 1S(Voltage \pm 3%)

≤3S

- The transient voltage deviation
- Frequency recovery time
- Voltage recovery time
- THF (Telephone Harmonic Factor) <3
- TIF (Telephone Influence Factor) <50 Comply to Standard NEMA MG1-22.43
- Built-in vibration isolator with high performance on shock absorption.

Standard Configuration

- **Cummins Engine**
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40°C standard ambient temperature (50°C Optional)
- Circuit breaker (3P)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files

Optional Items

- Starting batteries
- Fuel tank
- Oil-water separator
- Sensor for low coolant level, low fuel/oil level
- Automatically monitoring & controlling system of city power
- Coolant heater
- Oil heater
- Heat exchanger--Water cooled tower system
- Soundproof canopy
- Trailer
- Design and construction of environmental protection engineering for the Genset room





Diesel Engine

- Model: NTA855-G1A
- Structure: replaceable wet type cylinder block has excellent radiation. Mature standard spare parts commonly apply to other engine in this series.Cylinder block and head will have no fault with the designment of internal oil passage and compact structure
- Cooling system: Adopt gear centrifugal water pump to cool down water temperature. With large flow channel designmeng ,it has good cooling performance;
- Fuel system: Cummins patented technology (PT) fuel system optimizes combustion and reduces emission;



The engine may be operated at:

1800 RPM up to 5000 ft. (1525 m) and 104° F (40 $^{\circ}$ C) without power deration. 1500 RPM up to 5000 ft. (1525 m) and 104 $^{\circ}$ F (40 $^{\circ}$ C) without power deration.

For sustained operation above these conditions, derate by 4% per 1,000 ft.(300 m), and 1% per 10 $^\circ\,$ F (2% per 11 $^\circ\rm C$).

Alternator

- Optional brands: Stamford / Marathon / Faraday / Engga / Mecc Alt
- Brushless, 4 pole rotating magnetic field, single bearing with protective cover.
- Insulation: H Class.
- IP Class: IP23
- Cooling system
- AC exciter, rotate rectifying
- Rotor and exciter made with high temperature insulating resin, to satify tough environment.
- Rotor dynamic balancing complys for BS5625, class 2.
- Sealed with advanced lubricating grease to prolong life of bearing.



Intelligent Control System



Standard

- 3 phases voltage: Ua, Ub, Uc
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed

- 3 phases current: La, Lb, Lc
- Active power PA
- Power factor PF
- Temperature °C display
- KPa/Psi/Bar display
- Battery voltage V
- **Running Hour**
- Starting timer: (999999)



Standard Protection

Genset Protection

Programmable I/O signal

Engine Protection

- Stop for over speed
- Low oil pressure
- High Coolant temperature
- Sensor fail

Alternator Protection

- **Over Voltage**
- Over current
- Voltage signal lost

Control System Components

- Manual/auto/stop/start
- Setting button
- Fault status indicators

Emergency stop

- Alarm for low/high battery voltage
- Low battery voltage
- Fail to start/Cranking fail

Over Voltage

- Over frequency
- Under frequency
- Screen menu selection button
- Emergency stop button
- **Digital displayer**

Communication Interface

(Option)

International standard MODBUS communication protocol RS232/ RS485 is suitable for remote control and monitor; It is easy integrated with SCADA;.



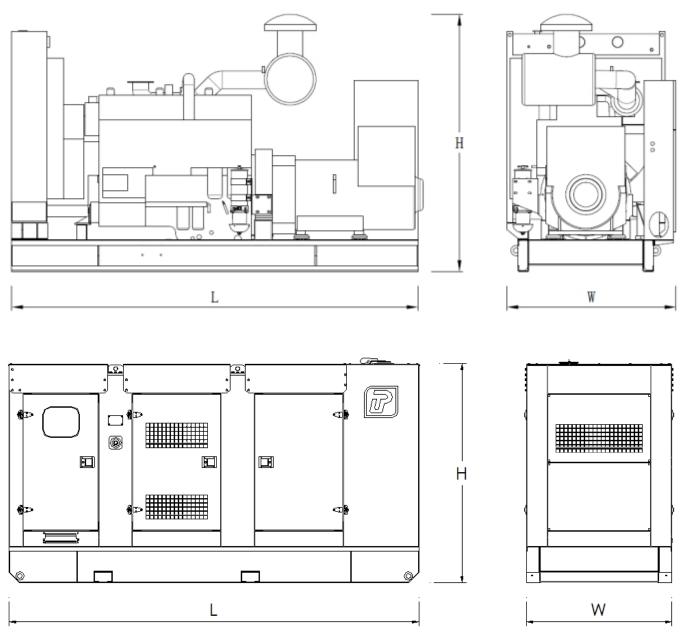
Data sheet of Genset



Genset				
Model	sPCC315B			
Prime Rating (kw)	220			
Standby Rating (kw)	250			
Rate voltage(V)	400			
Rate current(A)	397			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model NTA855-G1A				
Gross Engine output-Prime (kw)	264			
Gross Engine output-Standby (kw)	291			
Bore * stroke (mm)	140*152			
Cylinders and structure	6 In line			
Displacement(Liter)	14			
Compression Ratio	14.5:1			
Intake way	Turbocharged/Water-Air intercooler			
Max intake resistance (KPa)	6.2			
Air intake (m3/h)	1271			
Max exhaust back pressure (KPa)	10			
Exhaust gas flow (m3/h)	2974			
Exhaust temp (°C)	484			
Cooling way	Water Radiator & Fan			
Fan exhaust flow (m3/min)	708			
Coolant capacity (L)	66			
Highest water temperature(°C)	96			
Minimum air opening to room (m2)	1.9/1.6			
Thermostat range (°C)	82-94			
Max oil temperature (°C) 121				
Lubrication system oil capacity (L)	38.6			
Rate load fuel consumption(L/H)	61.3			
Standard Governor/Class	Electronic			
Alternator				
Rated Voltage(V)	230/400			
Output Way	3 Phases, 4 wires			
Rated power factor	0.8			
Exciter	Brushless, Self-exciter			
Max voltage regulation	±1%			
Phase	3			
Protection class	IP21-23			
Insulation class	Н			
Controller				
Brand	POWERTEC			
	1			

Dimension and Weight





Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3070*1347*1694	2550	-
Silent Type	3950*1400*2115	3950	750

Contact Us

Powertec Generator System Inc.

Add:	Danshui Yanna Industry Zone, Huiyang, Huizhou, Guangdong, China
Tel:	+86 752-3911119 / 3911118
Fax:	+86 752-3911110
Web:	www.powertec.com.cn
Email:	powertec@powertec.com.cn